

**Microstepping drives 18Vdc(16Vac)...240Vdc(65Vac)
 0.3Arms...10Arms (14.1Apk)**

High reliability and performance, compact size and low cost are the main characteristics of the drives of the OS10 and LS10 series.

Realized in open design they can be easily integrated inside equipments and cabinet. The drive is mountable through 4 holes placed on the corners of the OS10 board, or through 2 holes for the wall mounting LS10 series.

The connection to the motor, with the logical signals and to the power supply is through three different terminal blocks, each one numbered and suitable for 2.5mm² wire size.

Using the last electronic components generation and the SMT technology it has been possible to obtain in a small space high power and advanced performances.

The many setting options available allow to use the drives with any kind of motor and application. The phase motor current can be tuned fine in a wide range of value as the step resolution, the current reduction, etc.

Each logic signal can be set independently from the other to PNP or NPN logic, each input can also be driven using line-driver technology.

The drive is fully protected to preserve its integrity from the most common problems.

The diagnostics is complete and univocally signals whenever one or more protections occur. Furthermore a break motor phase diagnostics is also available, very useful to determine wiring problems or motor failures.

The drive setting and diagnostics is very easy with the free *UDP Commander* Windows software.

The connection to the programming DUP port of the drive is obtained through the UDP30 interface (see below), which is connected to the PC by the USB port. The interface ensures also the electrical insulation between the PC and the drive.

- ✓ Compact size
- ✓ Decimal and binary resolution
- ✓ Resolution up to 25,600 step/rev
- ✓ STEP frequency over 300KHz
- ✓ Built-in oscillator for start/stop mode
- ✓ Gate function
- ✓ Resonance damping
- ✓ Automatic current reduction
- ✓ Accurate current control
- ✓ Chopper frequency over 20KHz
- ✓ High efficiency power mosfet stage
- ✓ AC power supply models available
- ✓ Optocoupled and differential I/O, independently NPN or PNP usable
- ✓ Inputs working from 3Vdc up to 28Vdc with constant current
- ✓ Line driving supported
- ✓ Digital signal conditioning for each I/O
- ✓ Complete diagnostics with univocal indication for each anomaly
- ✓ Over/under voltage protection, short circuit protection (cross phase, ground and positive supply)
- ✓ Overheating protection
- ✓ Break motor phase diagnostics
- ✓ Connections on screw terminal block
- ✓ Low cost



Symbol	Description	Value			Unit
		Min	Typ	Max	
Vp	Power supply voltage (for DC models)	OS1041(A)	18	50	Vdc
Vac	Power supply voltage (for AC models)	LS1041(A)	16	36	Vac
If	Motor phase current (rms)		0,3	1,4	Arms
Vp	Power supply voltage (for DC models)	OS1044(A)	20	50	Vdc
Vac	Power supply voltage (for AC models)	LS1044(A)	18	36	Vac
If	Motor phase current (rms)		1	4	Arms
Vp	Power supply voltage	OS1048	20	50	Vdc
If	Motor phase current (rms)	LS1048	3	8	Arms
Vp	Power supply voltage (for DC models)	OS1073(A)	24	90	Vdc
Vac	Power supply voltage (for AC models)	LS1073(A)	20	65	Vac
If	Motor phase current (rms)		0,8	3	Arms
Vp	Power supply voltage	LS1074	24	90	Vdc
If	Motor phase current (rms)		1	4,5	Arms
Vp	Power supply voltage	OS1076	24	90	Vdc
If	Motor phase current (rms)	LS1076	2	6	Arms
Vp	Power supply voltage	OS1078	24	90	Vdc
If	Motor phase current (rms)	LS1078	4	10	Arms
Vp	Power supply voltage	OS1084	45	160	Vdc
If	Motor phase current (rms)	LS1084	2	4	Arms
Vp	Power supply voltage	OS1087	45	160	Vdc
If	Motor phase current (rms)	LS1087	4	8,5	Arms
Vp	Power supply voltage	OS1098	45	240	Vdc
If	Motor phase current (rms)	LS1098	4	10	Arms
Res	Step resolution available		200, 400, 800, 1000, 1600, 2000, 3200, 4000, 5000, 6400, 10000, 12800, 25000, 25600		Step / Rev.
Vdi	Digital input voltage range		3	28	Vdc
Idi	Digital input supply current		4	8	mA
Vdo	Digital output voltage range		1	30	Vdc
Ido	Digital output current range			50	mA
Prt	Protections / Diagnostics / Alarms	Over/Under voltage, Short circuit, Overheating, Break phase			
Fch	Chopper frequency		20		KHz
Mechanical Specifications					
FDh	Height	OS1041(A), OS1044, OS1073(A)	18.0 (22.0)		mm
		OS1044A, OS1048, OS1076, OS1078, OS1084, OS1087, OS1098	29.0		
		LSxxxx(A)	78.0 (78.0)		
FDI	Length	OSxxxx(A)	105.0 (105.0)		mm
		LSxxxx(A)	110.0 (110.0)		
FDw	Width	OSxxxx(A)	78.0 (78.0)		mm
		LSxxxx(A)	25.0 (35.0)		
FDnw	Weight	OS1041(A), OS1044(A), OS1073(A)	90 (115)		g
		OS1048, OS1076, OS1078, OS1084	180		
		OS1087, OS1098			
		LSxxxx(A)	155 (180)		

